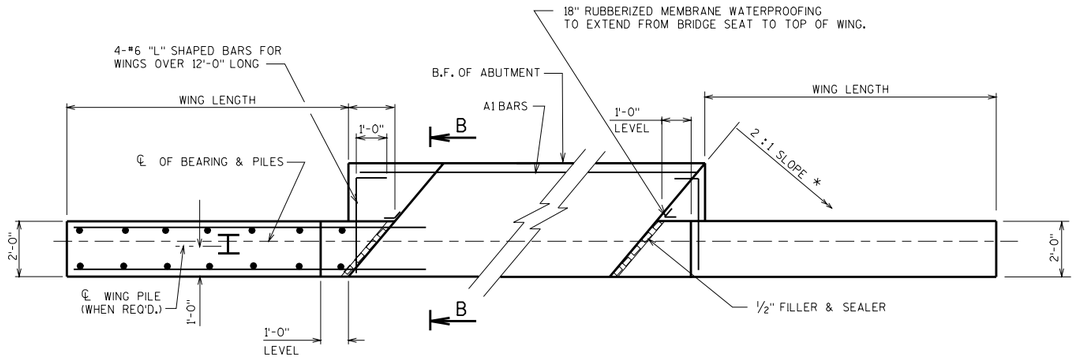
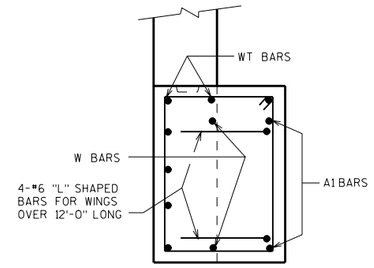


PLAN FOR TYPE A1 ABUTMENT



SECTION B-B

SEE STD. 12.1 & 12.2 FOR NOTES & DETAILS

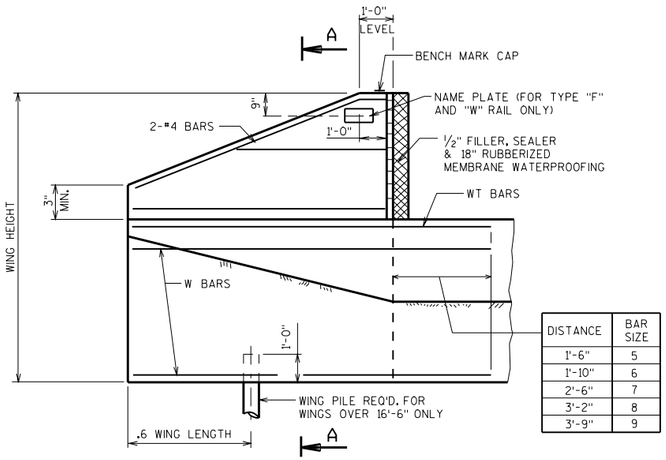
DESIGNER NOTES

THIS TYPE OF WING MAY BE USED IN LIEU OF WINGS PARALLEL TO ROADWAY IF APPROVED BY THE BUREAU OF STRUCTURES DESIGN SECTION. DO NOT USE FOR STREAM CROSSINGS WHEN HIGH WATER ELEVATION IS ABOVE TOP OF BERM ELEVATION.

*USE 2½:1 FOR THE UNSTABLE CLAYS WHICH ARE SOMETIMES ENCOUNTERED IN NORTHWEST WISC. (SUPERIOR AREA)

DESIGN LOADS (WINGS)

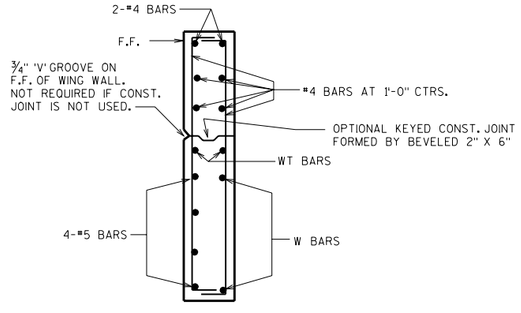
LIVE LOAD = 1'-0" SURCHARGE
LOAD FACTOR = 1.3 (5/3 LL + 5/3 E)
HORIZONTAL EARTH LOAD = 33 LBS. PER SQ. FT. EQUIV. FLUID PRESSURE
fy = 60,000 P.S.I.
f'c = 3,500 P.S.I.



DISTANCE	BAR SIZE
1'-6"	5
1'-10"	6
2'-6"	7
3'-2"	8
3'-9"	9

WING ELEVATION

(A1 ABUTMENT)



SECTION A-A

TABLE A

WING LENGTH	WING HEIGHT 8'-6"	10'-0"	11'-6"	13'-0"	BARS
10'-0"	4-#5	4-#5	5-#5	——	W
	2-#5	2-#5	2-#5	——	WT
	4-#6	4-#6	4-#6	——	A1
12'-0"	——	4-#7	5-#7	4-#8	W
	——	2-#7	2-#7	2-#8	WT
	——	4-#6	5-#6	4-#7	A1
16'-0"	——	5-#8	6-#8	5-#9	W
	——	2-#8	2-#8	2-#9	WT
	——	6-#6	4-#8	6-#7	A1
⚠ 20'-0"	——	——	8-#8	8-#9	W
	——	——	2-#8	2-#9	WT
	——	——	6-#8	7-#8	A1

⚠ WING PILE REQUIRED

DETAILS FOR WINGS PARALLEL TO A1 ABUTMENT CENTERLINE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DEVELOPMENT SECTION

APPROVED: _____ DATE: 1-02